

Further Notes on *Libythea celtis*. (With five plates.)

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In the last Volume of the *Ent. Record* (xxiv., p. 302) I gave a short account of the egg and oviposition of *Libythea celtis*: as I have a few notes and specimens of the larva, it may be useful to say something of these.

Eggs laid on April 17th hatched on the 23rd. The newly-hatched larva is pale grey with some brown tints on the head. In the 2nd instar the head is nearly black and the rest of the larva is of a neutral grey tint and looks quite hairy (the hairs being aggregated, of course, just after moult). When full-grown in this instar it is 5mm. long, with black head, a pale slaty body, with a paler dorsal line and a paler, nearly white, lateral (subspiracular) line, reminding one much of *Pieris* or *Euchloë*. Seen under a moderate hand lens (dorsally), the appearance suggests an *Iulus*, due to the great distinctness of the subsegmentation, giving the impression of a large number of quite equal segments. There are, in fact, four subsegments to each abdominal segment, fairly equal, but the two front ones perhaps rather wider than the two posterior. Beneath the lateral line the flange is not continuous but is divided by an oblique projection on each segment. There are very numerous short black hairs, now hardly visible except in profile against a pale background. The larva is of very equal diameter from end to end, the head is only slightly smaller. The prothoracic plate presents, on each side, a very narrow black slip, with a good many black hairs, like those elsewhere. The larva has a habit of sitting in "sphinx" attitude.

In the 3rd instar the larva is substantially as in the 2nd, with an increase in length to 7.5mm. or 8mm. Head black with a pale transverse greenish shade. The colour is rather darker, and pale bases around the origins of the abundant black hairs can be distinguished.

In the following instars the hairs become less obvious, the colour becomes green, most of the full-grown larvæ being green with white lateral lines, a few, however, retain a brownish coloration.

The arrangement of hairs in 1st stage *Celtis* is, on prothorax, on each side of the middle line a group of four, the 1st (from middle line) and 3rd shorter and slightly posterior to 2nd and 4th. Then two, the second decidedly long, next another long one, all these approximately in a transverse line, then another a little posterior at about spiracular level. On mesothorax on each side, three short hairs about equally spaced in a transverse line, then a fourth rather longer and a little posterior, another longer one at a lower level and another further behind not quite so low. [On the metathorax the arrangement is the same.] On the abdominal segments are i, ii and iii, short hairs well apart, iii a little posterior to i, ii a good deal so. Two hairs, rather longer and more slender below spiracle, the posterior the longer and lower, on 9th and 10th, the arrangement is modified. On the posterior margin and beneath are more ordinary (pointed) hairs, some as long as those already noticed. These expand towards their extremities and have a circle of fine points, the appearance suggests that they are hollow and cupped like those of some Pierids. The longer are about .05mm. in length the shortest about .02mm. The prolegs have 9 to 11 hooks in two sizes and apparently in a single transverse row. (pl. xiii., figs. 1 and 2).

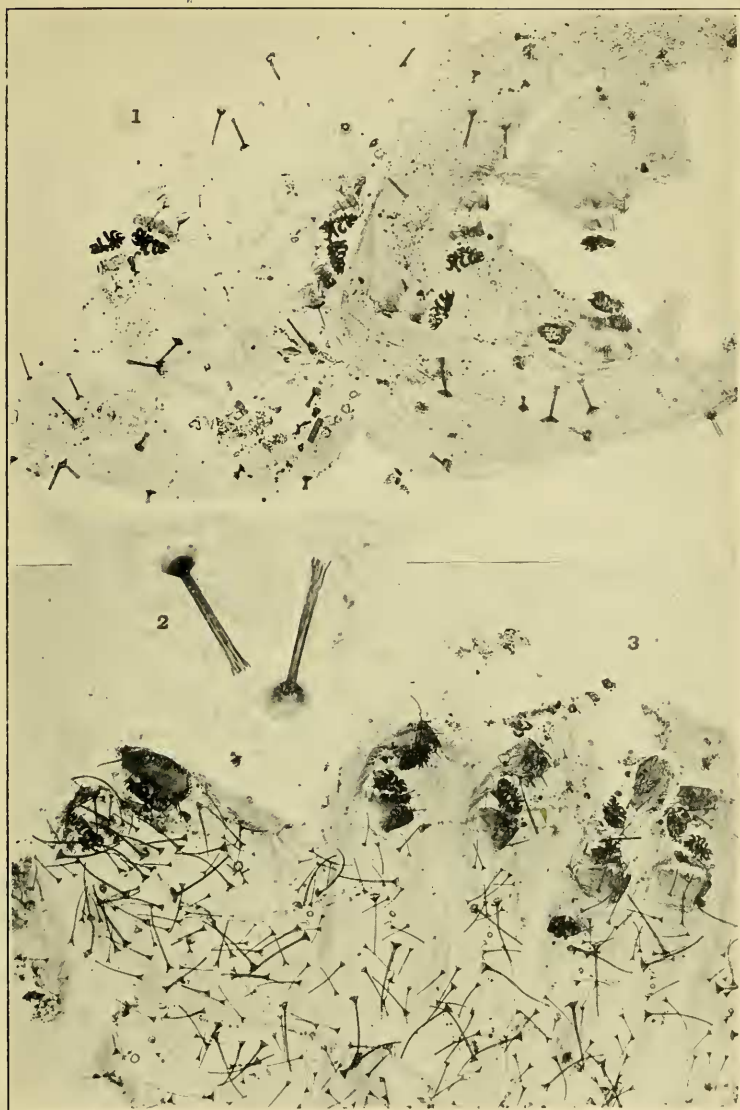


Photo. F. Clark.

LIBYTHEA CELTIS, LARVAL SKINS 1ST AND 2ND INSTAR.

